



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

such as the parrot eye, the biting mouth, and the mole-like teeth, the curved line of the serpent's body, and the beautiful outlines of the *antennæ* of the bee, also its sting, and last, not least, the graceful leaf of the maize, and other natural forms which are symbols of fertility.

It may be interesting to remark that the phonetic value of the *antennæ* of the bee was suggested by the third 'glyph, *Cauac*, on the *Kukuitz* bas-relief, left-hand side of the Casa No. 3, Palenque. This 'glyph was traced to more demotic forms on plate 25 of the Troano, also plate 24, where it is upheld by the Goddess *Cab*. Near the figure of *Cab* is the same infant-like figure that is to be seen on the so-called tablet of the cross of Palenque. The component characters of the 'glyphs composing this child's body refer to his name as *Ikilcab*, and this same name is expressed on the head-dress and hieroglyphs of the God-with-the-long-nose of the Troano, and other manuscripts, so-called by students to distinguish him. *Ikilcab* and *Cauac*, the *Cuch-haab*, are in some way clearly connected, for the components of the *Cauac* 'glyph of the day-signs of Landa and those of the Chilan Balaam of Kaua are closely connected with those of *Caban*. The *Cauac* 'glyph, if my interpretation be correct,

reads *Ikilcab*. The ancient Mayas probably thought of the bee as *Ikil*, the sting, and *Cab*, honey. The 'glyph of the day-sign, *Caban*, refers to that day-sign and *Ikilcab*, and is also the honey sign ("Bee Keeper's Narrative," the Codex Troano). The numeral signs of the Troano, both red and black, seem to have been used at times ikonometrically. The serpent symbol on plate 25, division 1, Troano, is *C'an*, and close to it are numerals giving the suggestion *Hunakbu*, the one God. On the sun symbol of this plate are numerals, which, in connection with the flute 'glyph (*Chul*) projecting above the sun-disk and the hand below pinching the machete, suggest the interpretation "a name," *Chu-kul-ca-can*.

Alliteration and syncapation for the sake of euphony are especially noticeable in the Maya language, but do not seem to be followed in the arrangement of their graphic characters, and no regularity of procedure, in reading the component parts of a 'glyph, seems to exist. As a general thing, however, some object carried in the hand of a figure, or placed near it, serves as a sort of a determination or suggestion; this is more frequently the case in the demotic than hieratic script.

#### Publications Received at Editor's Office.

- AMERICAN JOURNAL OF POLITICS. Vol. I. No. 1. 35 cents.  
CHAMBERS'S ENCYCLOPEDIA. Vol. IX. Philadelphia, J. B. Lippincott Co. Imp. 8°. 80.  
CRESSON, HILBORNE T. Report upon Pile-Structures in Naaman's Creek. Cambridge, Peabody Museum. 8°. Paper. 21 p.  
NATIONAL POPULAR REVIEW. Vol. I. No. 1. San Diego, Cal., J. Harrison White. 25 cents.  
ROYAL SOCIETY OF VICTORIA. Transactions. Vol. II. Part II. Melbourne, The Society. 4°. Paper. 51 p.

Reading Matter Notices.  
Ripans Tabules cure jaundice.

### Societas Entomologica.

International Entomological Society, Zurich-Hottingen, Switzerland.  
Annual fee, ten francs.

The Journal of the Society appears twice a month, and consists entirely of original articles on entomology, with a department for advertisements. All members may use this department free of cost for advertisements relating to entomology.

The Society consists of about 450 members in all countries of the world.

The new volume began April 1, 1892. The numbers already issued will be sent to new members.

For information address Mr. FRITZ RUHL, President of the Societas Entomologica, Zurich-Hottingen, Switzerland.

### NEO-DARWINISM AND NEO-LAMARCKISM.

By LESTER F. WARD.

Annual address of the President of the Biological Society of Washington delivered Jan. 24, 1891. A historical and critical review of modern scientific thought relative to heredity, and especially to the problem of the transmission of acquired characters. The following are the several heads involved in the discussion: Status of the Problem, Lamarckism, Darwinism, Acquired Characters, Theories of Heredity, Views of Mr. Galton, Teachings of Professor Weismann, A Critique of Weismann, Neo-Darwinism, Neo-Lamarckism, the American "School," Application to the Human Race. In so far as views are expressed they are in the main in line with the general current of American thought, and opposed to the extreme doctrine of the non-transmissibility of acquired characters.

Price, postpaid, 25 cents.

N. D. C. HODGES, 874 Broadway, N. Y.

#### Exchanges.

[Free of charge to all, if of satisfactory character. Address N. D. C. Hodges, 874 Broadway, New York.]

Taxidermist going out of business has quantity of finely-mounted specimens of North American birds, mammals and reptiles and skins of birds for sale, including a full local collection of bird skins, showing some great variations of species; also quantity of skulls with horns of deer and mountain sheep, and mounted heads of same. Will give good exchange for Hawk Eye camera with outfit. Apply quickly to J. R. Thurston, 265 Yonge St., Toronto, Canada.

For exchange.—A fine thirteen-keyed flute in leather covered case, for a photograph camera suitable for making lantern slides. Flute cost \$27, and is nearly new. U. O. COX, Mankato, Minn.

To exchange; Experiment Station bulletins and reports for bulletins and reports not in my file. I will send list of what I have for exchange. P. H. ROLFS, Lake City, Florida.

Finished specimens of all colors of Vermont marble for fine fossils or crystals. Will be given only for valuable specimens because of the cost of polishing. GEO. W. PERRY, State Geologist, Rutland, Vt.

For exchange.—Three copies of "American State Papers Bearing on Sunday Legislation," 1891, \$2.50, new and unused, for "The Sabbath," by Harmon Kingsbury, 1840; "The Sabbath," by A. A. Phelps, 1842; "History of the Institution of the Sabbath Day, Its Uses and Abuses," by W. L. Fisher, 1859; "Humorous Phases of the Law," by Irving Browne; or other works amounting to value of books exchanged, on the question of governmental legislation in reference to religion, personal liberty, etc. If preferred, I will sell "American State Papers," and buy other books on the subject. WILLIAM AD-DISON BLAKELY, Chicago, Ill.

For Sale or Exchange for books a complete private chemical laboratory outfit. Includes large Becker balance (aog. to 1-10mg.), platinum dishes and crucibles, agate mortars, glass-blowing apparatus, etc. For sale in part or whole. Also complete file of *Silliman's Journal*, 1862-1885 (62-71 bound); Smithsonian Reports, 1854-1883; U. S. Coast Survey, 1854-1869. Full particulars to enquirers. F. GARDINER, JR., Pomfret, Conn.

Wanted, in exchange for the following works, any standard works on Surgery and on Diseases of Children: Wilson's "American Ornithology," 3 vols.; Coues' "Birds of the Northwest" and "Birds of the Colorado Valley," 2 vols.; Minot's "Land and Game Birds of New England"; Samuels' "Our Northern and Eastern Birds," all the Reports on the Birds of the Pacific R. R. Survey, bound in 2 vols., Morocco; and a complete set of the Reports of the Arkansas Geological Survey. Please give editions and dates in corresponding. R. ELLSWORTH CALL, High School, Des Moines, Iowa.

To exchange Wright's "Ice Age in North America" and Le Conte's "Elements of Geology" (Copyright 1882) for "Darwinism," by A. R. Wallace, "Origin of Species," by Darwin, "Descent of Man," by Darwin, "Man's Place in Nature," Huxley, "Mental Evolution in Animals," by Romanes, "Pre-Adamites," by Winchell. No books wanted except latest editions, and books in good condition. C. S. Brown, Jr., Vanderbilt University, Nashville, Tenn.

#### Wants.

Any person seeking a position for which he is qualified by his scientific attainments, or any person seeking some one to fill a position of this character, be it that of a teacher of science, chemist, draughtsman, or what not, may have the "Want" inserted under this head FREE OF COST, if he satisfies the publisher of the suitable character of his application. Any person seeking information on any scientific question, the address of any scientific man, or who can in any way use this column for a purpose consonant with the nature of the paper, is cordially invited to do so.

WANTED.—A collection of postage stamps; one made previous to 1870 preferred. Also old and curious stamps on original letters, and old entire U. S. stamped envelopes. Will pay cash or give in exchange first-class fossils, including fine crinoids. WM. F. E. GURLEY, Danville, Ill.

WANTED.—To purchase laboratory outfit; balances, evaporating dishes, burettes, etc., wanted immediately for cash. C. E. SPEIRS, 23 Murray street, New York. P. O. Box 1741.

WANTED.—The services of a wide-awake young man, as correspondent, in a large manufacturing optical business; one preferred who has a thorough knowledge of microscopy and some knowledge of photography. Address by letter, stating age and references. Optical, care of Science, 874 Broadway, New York.

WANTED.—We want any and all of the following, providing we can trade other books and magazines or buy them cheap for cash: Academy, London, vol. 1 to 28, 35, Jan. and Feb., '89; Age of Steel, vol. 1 to 66; American Antiquarian, vol. 1, 2; American Architect, vol. 1 to 6, 9; American Art Review, vol. 3; American Field, vol. 1 to 21; American Geologist, vol. 1 to 6; American Machinist, vol. 1 to 4; Art Amateur, vol. 1 to 7, Oct., '4; Art Interchange, vol. 1 to 9; Art Union, vol. 1 to 4, Jan., '44, July, '45; Bibliotheca Sacra, vol. 1 to 46; Godey's Lady's Book, vol. 1 to 20; New Englander, vol. 11; Zoologist, Series 1 and 1, Series 3 vol. 1 to 14; Allen Armendale (a novel). Raymer's "Old Book" Store, 243 4th Ave. S., Minneapolis, Minn.

WANTED.—By a young man, a Swarthmore College junior, a position as principal of a public high school in one of the Gulf States, or as instructor in botany, physiology, and geology in an academy or normal school. Address B., care of Librarian, Swarthmore College, Penn.

WANTED.—To act as correspondent for one or two daily or weekly papers. Have worked on paper for about two years. Would like a position on editorial staff of humorous paper. Address GEO. C. MASON, 14 Elm St., Hartford, Conn.

TRANSLATOR wanted to read German architectural works at sight (no writing). One familiar with technical terms desired. Address "A.," Box 149, New York Post Office.

WANTED.—A position in a manufacturing establishment by a manufacturing Chemist of inventive ability. Address M. W. B., care of Science, 874 Broadway, N. Y.

## AMONG THE PUBLISHERS.

A SECOND revised and enlarged edition of a popular work on the tariff question, entitled "The Free Trade Struggle in England," by Gen. M. M. Trumbull, will shortly be issued by the Open Court Publishing Company.

— Charles L. Webster & Co. will soon issue a work by R. L. Garner, entitled "The Speech of Monkeys." This work embodies his researches up to the present time. It is divided into two parts, the first being a record of experiments with monkeys and other animals, and the second part a treatise on the theory of speech. The work is written so as to bring the subject within reach of the casual reader without impairing its scientific value.

— Ginn & Co. will publish at once "German and English Sounds," by C. H. Grandgent, director of Modern Language Instruction in the Boston Public Schools. The volume will contain a detailed account of the sounds that occur in German and English speech, a description of the principal local variations in the pro-

nunciation of both languages, and a series of diagrams showing the positions of the vocal organs during the formation of the vowels and the more difficult consonants.

— G. P. Putnam's Sons have in press "Japan in Art and Industry," by Felix Régamey, translated by E. L. Sheldon (fully illustrated); "The Fairy Tales of India," collected and edited by Joseph Jacobs, who follows up his "Celtic Fairy Tales" of last Christmas and "English Fairy Tales" of the preceding Christmas by a selection from the gorgeous fancy of the East, illustrated by J. D. Batten; "Hygienic Measures in Relation to Infectious Diseases," comprising in a condensed form information as to the cause and mode of spreading certain diseases, and the preventive measures that should be resorted to — isolation, disinfection, etc., by George H. F. Nuttall, M.D., Ph.D., Associate in Hygiene and bacteriology, Johns Hopkins University and Hospital; "Temperament, Disease, and Health: an essay," by Com. F. E. Chadwick, U.S.A. (retired), and "Lyrics and Ballads of Heine, Goethe, and Other German Poets," translated by Frances Hellman.

# Horsford's Acid Phosphate,

Recommended and prescribed  
by physicians of all schools

FOR

DYSPEPSIA, NERVOUSNESS,  
EXHAUSTION,

and all diseases arising from im-  
perfect digestion and derange-  
ments of the nervous system.

It aids digestion, and is a  
brain and nerve food.

Descriptive pamphlet free.  
Rumford Chemical Works, Providence, R. I.

**Beware of Substitutes and Imitations.**

## A TEMPORARY BINDER

for *Science* is now ready, and will be mailed  
postpaid on receipt of 75 cents.



This binder is strong, durable and elegant, has gilt side-title, and allows the opening of the pages perfectly flat. Any number can be taken out or replaced without disturbing the others, and the papers are not mutilated for subsequent permanent binding. Filed in this binder, *Science* is always convenient for reference.

**N. D. C. HODGES, Publisher,**

874 Broadway, New York.

## LITERARY OUTFIT FREE.

Anyone sending us \$1.00 at once and mentioning "Science," will receive a copy of "Historical Sketches and Events in the Colonization of America," by G. B. Hall. A square 8vo. book (6½x9 inches), 223 pages, illustrated. This is a regular \$2.00 book and a bargain at that price. . . . \$ 2 00  
200 Private Library Labels; they should be used by all who own books. . . . 50  
"The Library," a 100-page book containing a brief list of most important standard and miscellaneous books in every department of literature. Intended for those who are about forming a library. Hints about what books to read and how to buy them. . . . 50  
1 year's subscription to the "Literary Light," a monthly magazine of Ancient, Mediaeval and Modern Literature. . . . 1 00

\$4.00 actual value for \$1.00. Sample copy of "Literary Light," 10 cents (postal card won't do).

Address, **Literary Light,** Minneapolis, Minn.  
243 4th Ave. S.

## ESTERBROOK'S STEEL PENS.

OF SUPERIOR AND STANDARD QUALITY.

Leading Nos.: 048, 14, 130, 135, 239, 333

For Sale by all Stationers.

**THE ESTERBROOK STEEL PEN CO.,**  
Works: Camden, N. J. 26 John St., New York.

**NEW ARC LAMP  
COLLEGE PROJECTOR**  
FOR INCANDESCENT  
CURRENT  
ABSOLUTELY  
STEADY  
SEND FOR CIRCULAR TO  
**J.W. QUEEN & CO.**  
PHILA. PA.

THE CHEAPEST AND BEST  
**PHOTO ENGRAVING CO.**  
67 PARK PLACE NEW YORK  
ENGRAVING FOR ALL ILLUSTRATIVE AND  
ADVERTISING PURPOSES

## PATENTS

For INVENTORS. 40-page BOOK FREE. Address  
W. T. Fitzgerald, Attorney at Law, Washington, D.C.

**GEM OPALS.** Cut ready for setting. Having purchased a large lot at the Mexican locality, we are offering them at about one-fifth jewelers' prices; 50c., \$1, \$1.50, \$2, \$3. This is a rare opportunity to secure a fine gem very cheap. 100 pp. Mineral Catalogue 15c., in cloth 25c., Supplement 2c. GEO. L. ENGLISH & Co., Mineralogists, 739 and 735 Broadway, New York City.

## THE WEEKLY BULLETIN OF NEWSPAPER AND PERIODICAL LITERATURE.

Catalogues and Classifies Each Week  
**THE PRINCIPAL CONTENTS OF  
THE PERIODICAL PRESS.**

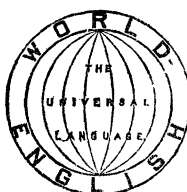
That huge mass of material heretofore inaccessible to the eager student is now rendered available. Special attention is invited to the Bulletin's

## INDEX OF TECHNICAL LITERATURE

Send for a free sample copy and learn how

**The Bulletin Supplies  
The Articles Catalogued.**

Address **THE WEEKLY BULLETIN,**  
5 Somerset Street, - - Boston, Mass.



**WORLD-ENGLISH.**  
25 Cents.

**HANDBOOK OF  
WORLD-ENGLISH.**  
25 Cents.

Ex-President Andrew D. White, of Cornell University, says: "I believe that the highest interests of Christian civilization and of humanity would be served by its adoption."

"So set down, our tongue is the best for the world to unite upon."—*Brooklyn Eagle*.

"The idea of Mr. Bell has much to recommend it, and the presentation is charmingly clear."—*American, Phila.*

"The result is a language which cannot fail to meet with acceptance."—*Boston Traveller*.

"World-English deserves the careful consideration of all serious scholars."—*Modern Language Notes*.

Sent, postpaid, on receipt of price.

**N. D. C. HODGES, 874 Broadway, New York.**

## FOSSIL RESINS.

This book is the result of an attempt to collect the scattered notices of fossil resins, exclusive of those on amber. The work is of interest also on account of descriptions given of the insects found embedded in these long-preserved exudations from early vegetation.

By **CLARENCE LOWN** and **HENRY BOOTH**  
12°. \$1.

**N. D. C. HODGES, 874 Broadway, N. Y.**

**POPULAR MANUAL OF VISIBLE SPEECH AND  
VOCAL PHYSIOLOGY.**

For use in Colleges and Normal Schools. Price 50 cents  
Sent free by post by

**N. D. C. HODGES, 874 Broadway, N. Y.**

## QUERY.

Can any reader of *Science* cite a case of lightning stroke in which the dissipation of a small conductor (one-sixteenth of an inch in diameter, say,) has failed to protect between two horizontal planes passing through its upper and lower ends respectively? Plenty of cases have been found which show that when the conductor is dissipated the building is not injured to the extent explained (for many of these see volumes of Philosophical Transactions at the time when lightning was attracting the attention of the Royal Society), but not an exception is yet known, although this query has been published far and wide among electricians.

First inserted June 19. No response to date.

**N. D. C. HODGES,**  
874 BROADWAY, NEW YORK.

**JUST READY.**

## THE LABRADOR COAST.

A Journal of two Summer Cruises to that region; with notes on its early discovery, on the Eskimo, on its physical geography, geology and natural history, together with a bibliography of charts, works and articles relating to the civil and natural history of the Labrador Peninsula.

By ALPHEUS SPRING PACKARD, M.D., Ph.D.

8°, 513 pp., \$3.50.

**N. D. C. HODGES, 874 Broadway, N. Y.**

## THE RADIOMETER.

By DANIEL S. TROY.

This contains a discussion of the reasons for their action and of the phenomena presented in Crookes' tubes.

**Price, postpaid, 50 cents.**

**N. D. C. HODGES, 874 Broadway, N. Y.**

## AUTHORS AND PUBLISHERS.

Material arranged and compiled for all kinds of works, excepting fiction. Statistics a specialty. Indexing and cataloguing. Address G. E. BIVER, 335 N. 16th Street, Philadelphia.

# TO THE READERS OF SCIENCE.

## PUBLISHER'S ANNOUNCEMENT.

Titles of Some Articles Published in *Science* since  
Jan. 1, 1892.

Aboriginal North American Tea.  
Actinism.  
Agriculture, Experimental, Status of.  
Amenhotep, King, the tomb of.  
Anatomy, The Teaching of, to Advanced Medical Students.  
Anthropology, Current Notes on.  
Architectural Exhibition in Brooklyn.  
Arsenical Poisoning from Domestic Fabrics.  
Artesian Wells in Iowa.  
Astronomical Notes.  
Bacteria, Some Uses of.  
Botanical Laboratory, A.  
Brain, A Few Characteristics of the Avian.  
Bythoscopidæ and Cereopidæ.  
Canada, Royal Society of.  
Celts, The Question of the.  
Chalcocothrium, The Ancestry of.  
Chemical Laboratory of the Case School of Applied Science.  
Children, Growth of.  
Collection of Objects Used in Worship.  
Cornell, The Change at.  
Deaf, Higher Education of the.  
Diphtheria, Tox-Albumin.  
Electrical Engineer, The Technical Education of.  
Eskimo Throwing Sticks.  
Etymology of two Iroquoian Compound Stems.  
Eye-Habits.  
Eyes, Relations of the Motor Muscles of, to Certain Facial Expressions.  
Family Traits, Persistency of.  
Fishes, The Distribution of.  
Fossils, Notice of New Gigantic.  
Four-fold Space, Possibility of a Realization of.  
Gems, Artificial, Detection of.  
Glacial Phenomena in Northeastern New York.  
Grasses, Homoptera Injurious to.  
Great Lakes, Origin of the Basins of.  
"Healing, Divine."  
Hemipter us Mouth, Structure of the.  
Hofmann, August Wilhelm von.  
Hypnotism among the Lower Animals.  
Hypnotism, Traumatic.  
Indian occupation of New York.  
Infant's Movements.  
Influenza, Latest Details Concerning the Germs of.  
Insects in Popular Dread in New Mexico.  
Inventions in Foreign Countries, How to Protect.  
Inventors and Manufacturers, the American Association of.  
Iowa Academy of Sciences.  
Jargon, The Chinook.  
Jasside; Notes on Local.  
Keller, Helen.  
Klamath Nation, Linguistics.  
Laboratory Training, Aims of.  
Lewis H. Carvill, Work on the Glacial Phenomena.  
Lightning, The New Method of Protecting Buildings from.  
Lissajou's Curves, Simple Apparatus for the Production of.  
Malze Plant, Observations on the Growth and Chemical Composition of.  
Maya Codices, a Key to the Mystery of.  
Medicine, Preparation for the Study of.  
Mineral Discoveries, Some Recent, in the State of Washington.  
Museums, The Support of.  
Palenque Tablet, a Brief Study of.  
Patent Office Building, The.  
Physa Heterostrophia Lay, Notes on the Fertility of.  
Pocket Gopher, Attempted Extermination of.  
Polariscopes, Direct Reflecting.  
Psychological Laboratory in the University of Toronto.  
Psychological Training, The Need of.  
Psylla, the Pear-Tree.  
Rain-Making.  
Rivers, Evolution of the Loup, in Nebraska.  
Scientific Alliance, The.  
Sistrurus and Crotalophorus.  
Star Photography, Notes on.  
Star, The New, in Auriga.  
Storage of Storm-Waters on the Great Plains.  
Teaching of Science.  
Tiger, A New Sabre-Toothed, from Kansas.  
Timber Trees of West Virginia.  
Tracheæ of Insects, Structure of.  
Vein-Formation, Valuable Experiments in.  
Weeds as Fertilizing Material.  
Will, a Recent Analysis of.  
Wind-Storms and Trees.  
Wines, The Sophisticated French.  
Zoology in the Public Schools of Washington, D. C.

Some of the Contributors to *Science* Since Jan. 1, 1892.

Aaron, Eugene M., Philadelphia, Pa.  
Allen, Harrison, Philadelphia, Pa.  
Baldwin, J. Mark, University of Toronto, Canada.  
Barnes, Charles Reid, Madison, Wis.

Baur, G., Clark University, Worcester, Mass.  
Beal, W. J., Agricultural College, Mich.  
Beals, A. H., Milledgeville, Ga.  
Beauchamp, W. M., Baldwinsville, N.Y.  
Boas, Franz, Clark University, Worcester, Mass.  
Bolley, H. L., Fargo, No. Dak.  
Bostwick, Arthur E., Montclair, N.J.  
Bradley, Milton, Springfield, Mass.  
Brinton, D. G., Philadelphia, Pa.  
Call, E. Ellsworth, Des Moines, Ia.  
Chandler, H., Buffalo, N.Y.  
Comstock, Theo. B., Tucson, Arizona.  
Conn, H. W., Middletown, Conn.  
Cragin, F. W., Colorado Springs, Col.  
Davis, W. M., Harvard College, Cambridge, Mass.  
Dimmock, George, Canobie Lake, N.H.  
Farrington, E. H., Agricultural Station, Champaign, Ill.  
Ferree, Barr, New York City.  
Flexner, Simon, Johns Hopkins University, Baltimore, Md.  
Foshay, P. Max, Rochester, N.Y.  
Gallaudet, E. M., Kendall Green, Washington, D.C.  
Garman, S., Museum of Comp. Zool., Cambridge, Mass.  
Golden, Katherine E., Agricultural College, Lafayette, Ind.  
Hale, Edwin M., Chicago, Ill.  
Hale, George S., Boston, Mass.  
Hale, Horatio, Clinton, Ontario, Canada.  
Hall, T. Proctor, Clark University, Worcester, Mass.  
Halsted, Byron D., Rutgers College, New Brunswick, N.J.  
Haworth, Erasmus, Oskaloosa, Iowa.  
Hay, O. P., Irvington, Ind.  
Haynes, Henry W., Boston Mass.  
Hazen, H. A., Weather Bureau, Washington, D.C.  
Hewitt, J. N. B., Bureau of Ethnology, Washington, D.C.  
Hicks, L. E., Lincoln, Neb.  
Hill, E. J., Chicago, Ill.  
Hill, Geo. A., Naval Observatory, Washington, D.C.  
Hitchcock, Romyn, Washington, D.C.  
Holmes, E. L., Chicago, Ill.  
Hotchkiss, Jed., Staunton, Va.  
Howe, Jas. Lewis, Louisville, Ky.  
Hubbard, Gardiner G., Washington, D.C.  
Jackson, Dugald C., Madison, Wisconsin.  
James, Joseph F., Agricultural Dept., Washington, D.C.  
Johnson, Roger B., Miami University, Oxford, O.  
Kellerman, Mrs. W. A., Columbus, O.  
Kellicott, D. S., State University, Columbus, O.  
Kellogg, D. S., Plattsburgh, N. Y.  
Lintner, J. A., Albany, N. Y.  
Loeb, Morris, New York City.  
Mabery, Charles F., Cleveland, Ohio.  
Macloskie, G., Princeton, N.J.  
McCarthy, Gerald, Agricultural Station, Raleigh, N.C.  
MacDonald, Arthur, Washington, D.C.  
Marshall, D. T., Metuchen, N.J.  
Mason, O. T., Smithsonian Institution, Washington, D.C.  
Mill-paugh, Charles F., Morgantown, W. Va.  
Nichols, C. F., Boston, Mass.  
Nuttall, George H. F., Johns Hopkins University, Baltimore, Md.  
Oliver, J. E., Cornell University, Ithaca, N.Y.  
Osborn, Henry F., Columbia College, New York City.  
Osborn, Herbert, Agricultural College, Ames, Iowa.  
Pammel, L. H., Agricultural Station, Ames, Iowa.  
Pillsbury, J. H., Smith College, Northampton, Mass.  
Poteat, W. L., Wake Forest, N. C.  
Preble, Jr., W. P., New York City.  
Ruffner, W. H., Lexington, Va.  
Sanford, Edmund C., Clark University, Worcester, Mass.  
Schufeldt, R. W., Washington, D.C.  
Scripture, E. W., Clark University, Worcester, Mass.  
Slade, D. D., Museum Comp. Zool., Cambridge, Mass.  
Smith, John B., Rutgers College, New Brunswick, N.J.  
Southwick, Edmund B., New York City.  
Stevens, George T., New York City.  
Stevenson, S. Y., Philadelphia, Pa.  
Stone, G. H., Colorado Springs, Col.  
Thomas, Cyrus, Washington, D. C.  
Thurston, R. H., Cornell University, Ithaca, N.Y.  
Todd, J. E., Tabor, Iowa.  
True, Frederick W., National Museum, Washington, D.C.  
Turner, C. H., University of Cincinnati, Cincinnati, O.  
Wake, C., Staniland, Chicago, Ill.  
Ward, R. DeC., Harvard University, Cambridge, Mass.  
Ward, Stanley M., Scranton, Pa.  
Warder, Robert B., Howard University, Washington, D.C.  
Welch, Wm. H., Johns Hopkins University, Baltimore, Md.  
West, Gerald M., Clark University, Worcester, Mass.  
Whitman, C. O., Clark University, Worcester, Mass.  
Williams, Edward H., Lehigh University, Bethlehem, Pa.